

METHOD FOR DIGITALLY RENDERING AN OBJECT USING MEASURED BRDF DATA

ABSTRACT OF THE DISCLOSURE

5 A digital rendering method employs measured BRDF values for a modeled material by collecting BRDF measurements using a precision reflectometer. A laser light may be used as the source of the incident beam. Sparsely measured BRDF data is resampled to build a data table of BRDF values over a dense regular grid. The data table may be supplied as input to a ray-tracing shader, and the shader may calculate
10 BRDF values for modeled light rays by interpolating between adjacent grid points for the data table.

15